

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-18. (canceled)

19. (currently amended) A filtration apparatus, comprising: which in use includes  
at least one shaftless rotor, ~~or rotor~~ and  
a rotor housing, as claimed in claim 1, wherein  
wherein  
the rotor comprises at least two recessed portions, wherein the portions are shaped to  
enable the rotor to rotate by the application of fluid flow to the rotor;  
the center of mass of the rotor is substantially at the centre of the volume of space  
occupied by the rotor; and  
at least one of the recessed portion portions of the rotor is adapted to temporarily cup or  
collect the fluid elements.

20. (currently amended) A filtration apparatus as claimed in claim 19, Claim 18  
wherein the housing incorporates one or more fluid element inlet ports and one or more fluid  
element outlet ports.

21. (currently amended) A filtration apparatus as claimed in Claim 19 claim 20,  
wherein the inlet port is configured to introduce the introduces fluid elements into the interior of

the housing in a direction eccentric in the transverse plane to the axis of the rotor.

22. **(currently amended)** A filtration apparatus as claimed in claim 19, Claim 18 wherein the housing includes an inlet port and an outlet port arranged such that set, each in positions selected from:

- (a) both ports are on the same side of the housing as one another; or [ , ]
- (b) each port is on one of opposite sides of the housing as one another; or [ , ]
- (c) [[both]] said ports are at [[on]] a 90 degree angle angles to each other.

23. **(currently amended)** A filtration apparatus as claimed in claim 19, Claim 18 wherein the fluid element is selected from the group including consisting of: a fuel; water; and a waste material.

24-25. (canceled)

26. **(new)** A filtration apparatus as claimed in claim 19, wherein the at least one recessed portion is a curved surface.

27. **(new)** A filtration apparatus as claimed in claim 19, wherein the rotor comprises:  
two recessed portions, one on each side of the rotor;  
an approximately cylindrical central portion between said two recessed portions, said central portion having an arcuate outer surface and being formed as a continuous band around the circumference of the rotor; and  
two tip regions, one on either side of a recessed portion, remote from the central portion.

28. **(new)** A filtration apparatus as claimed in claim 19, wherein the rotor is adapted to rotate about a single axis of rotation orientated substantially through the centre of mass of the

rotor.

29. (new) A filtration apparatus as claimed in claim 19, wherein the mass of the at least one recessed portion is balanced so as to place the centre of mass of the rotor at a point substantially in the centre of the volume of space occupied by the rotor.

30. (new) A filtration apparatus as claimed in claim 19, wherein the rotor is contained within the housing.

31. (new) A filtration apparatus as claimed in claim 19, wherein the rotor is covered by a protective coating.

32. (new) A filtration apparatus as claimed in claim 31, wherein the protective coating is selected from the group consisting of: flat black modified phenolic coatings; aluminium chromate ND; nickel plating; ceramic coatings; epoxy resins; magnesium; tantalum; and combinations thereof.

33. (new) A filtration apparatus as claimed in claim 30, wherein the housing includes at least one magnetic field generating element.

34. (new) A filtration apparatus as claimed in claim 19, wherein said rotor includes at least one magnet.

35. (new) A filtration apparatus as claimed in claim 34, wherein said magnet is offset from the centre of mass of the rotor.

36. (new) A filtration apparatus as claimed in claim 34, wherein the magnet is formed from materials including neodymium iron boron (NdFeB).

37. (new) A filtration apparatus as claimed in claim 30, further comprising an electrical conductor in close proximity to the exterior of the rotor housing.

38. (new) A filtration apparatus as claimed in claim 19, further comprising a magnet or magnets which are fixed within the rotor and which rotate as the rotor rotates; wherein the rotating magnet or magnets induce an electrical current in an electrical conductor integral or in close proximity to the exterior of the rotor housing.

39. (new) A filtration apparatus comprising at least two apparatuses as claimed in claim 19, wherein the apparatuses are arranged in a configuration selected from the group consisting of: in series; in parallel; and combinations thereof.